

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Please **CANCEL** claims 1, 7-11, and 17-20.

Please **AMEND** claims 2 and 12 as follows, placing them in independent form.

Claim 1 is hereby cancelled.

2. (Currently amended): [The] A multi-layer microwave interconnect module [as defined by claim 1 and further including] having a top surface and a bottom surface and comprising:

four metal layers separated by a plurality of dielectric layers including a top signal layer on the top surface, a bottom metal layer on the bottom surface, an internal ground layer, and an internal signal layer, the top signal layer providing contacts for electrical components mounted on the module, the internal signal layer providing a metal trace for cooperating with the internal ground layer as a microstrip, and the bottom metal layer providing a bottom ground plane and at least one input/output contact,

conductive vias selectively connecting at least one contact in the top signal layer to the bottom ground plane, at least one contact from the top signal layer to the at least one input/output contact, and contacts in the top signal layer to the metal trace in the internal signal layer, the conductive vias extending from the top surface to the bottom surface for ease in fabrication, the internal ground layer having a metal pattern devoid of metal at a location of a via not connected to the ground layer, and

a solder mask overlying the bottom surface and the conductive vias selectively interconnecting contacts in the top surface to the metal trace in the internal signal layer.

3. (Original) The multi-layer microwave interconnect module as defined by claim 2 wherein the dielectric comprises alumina.

4. (Original) The multi-layer microwave interconnect module as defined by claim 2 wherein the dielectric layer is selected from the group consisting of FR4, Getek, and BT.

5. (Original) The multi-layer microwave interconnect module as defined by claim 2 wherein the metal layer comprises copper.

6. (Original) The multi-layer microwave interconnect module as defined by claim 2 wherein the metal layer comprises a gold plated refractory metal.

Claims 7-11 are hereby cancelled.

12. (Currently amended) [The multi-layer] A microwave [interconnect] electronic module [as defined by claim 11 and further including] having a top surface and a bottom surface and comprising:

four metal layers separated by a plurality of dielectric layers with a top signal layer on the top surface, a bottom metal layer on the bottom surface, an internal ground layer, and an internal signal layer, the top signal layer providing contacts for electrical components mounted on the module, the internal signal layer providing a metal trace for cooperating with the internal ground layer as a microstrip, and the bottom metal layer providing a bottom ground plane and at least one input/output contact,

a plurality of electronic components mounted on the top surface of the module, conductive vias selectively connecting at least one contact in the top signal line to the bottom ground plane, at least one contact in the top signal layer to the at least one input/output contact, and contacts in the top signal layer to the metal trace in the internal signal layer, the conductive vias extending from the top surface to the bottom surface for ease in fabrication, the internal ground layer having a metal pattern devoid of metal where a via is not connected to the ground layer, and

a solder mask overlying the bottom surface and the conductive vias selectively interconnecting contacts in the top surface to the metal trace in the internal signal layer.

13. (Original) The multi-layer microwave interconnect module as defined by claim 12 wherein the dielectric comprises alumina.

14. (Original) The multi-layer microwave interconnect module as defined by claim 12 wherein the dielectric layer is selected from the group consisting of FR4, Getek, and BT.

15. (Original) The multi-layer microwave interconnect module as defined by claim 12 wherein the metal layer comprises copper.

16. (Original) The multi-layer microwave interconnect module as defined by claim 12 wherein the metal layer comprises a gold plated refractory metal.

Claims 17-20 are hereby cancelled.